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Purpose: CERCLA Site Inspection

Site: Tri-City Landfill
Beeline Highway
Salt River Indian Reservation
Maricopa County, Arizona 85256

ecology and environment, inc.

International Specialists in the Environmental Sciences

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Site ERRIS ID Number: ADZ980735781

Inspection ID Number: C(87)C017

TDD Number: F9-8611-40

FIT Investigator(s): Jane Hoppin
Douglas D. Russell

Date of Inspection: November 24, 1986

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Report Date: January 23, 1987

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1.0 INTRODUCTION

Tri-City Landfill, located on the Salt River Indian Reservation just east of Scottsdale, Arizona, was identified for evaluation under the U.S. Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) program (Superfund), based on a series of groundwater reports prepared by Ken Schmidt and Associates, a consultant for the Maricopa County Association of Governments, under their 205J program (MAG). The 205J program is designed to examine the DBCP and volatile organic chemical content in Mesa groundwater. In 1983 a CERCLA preliminary assessment of the site was prepared for EPA by Ecology and Environment, recommending no further action. This recommendation was due in large part to the Indian Health Service's belief that the site posed no apparent hazard. However, in light of the subsequent MAG report entitled, "Volatile Organic Chemicals and DBCP in Mesa Groundwater," prepared by Ken Schmidt in August 1986, the EPA referred the site to Ecology and Environment, Inc.'s Field Investigation Team (FIT) to perform a site inspection. These reports indicated volatile organic chemical contamination of groundwater in the area of the landfill.

FIT conducted a site inspection in November 1986. This report summarizes information obtained during the FIT site inspection and subsequent agency file searches and makes recommendations for further activity at the site.

2.0 SITE INFORMATION

2.1 Site History and Description

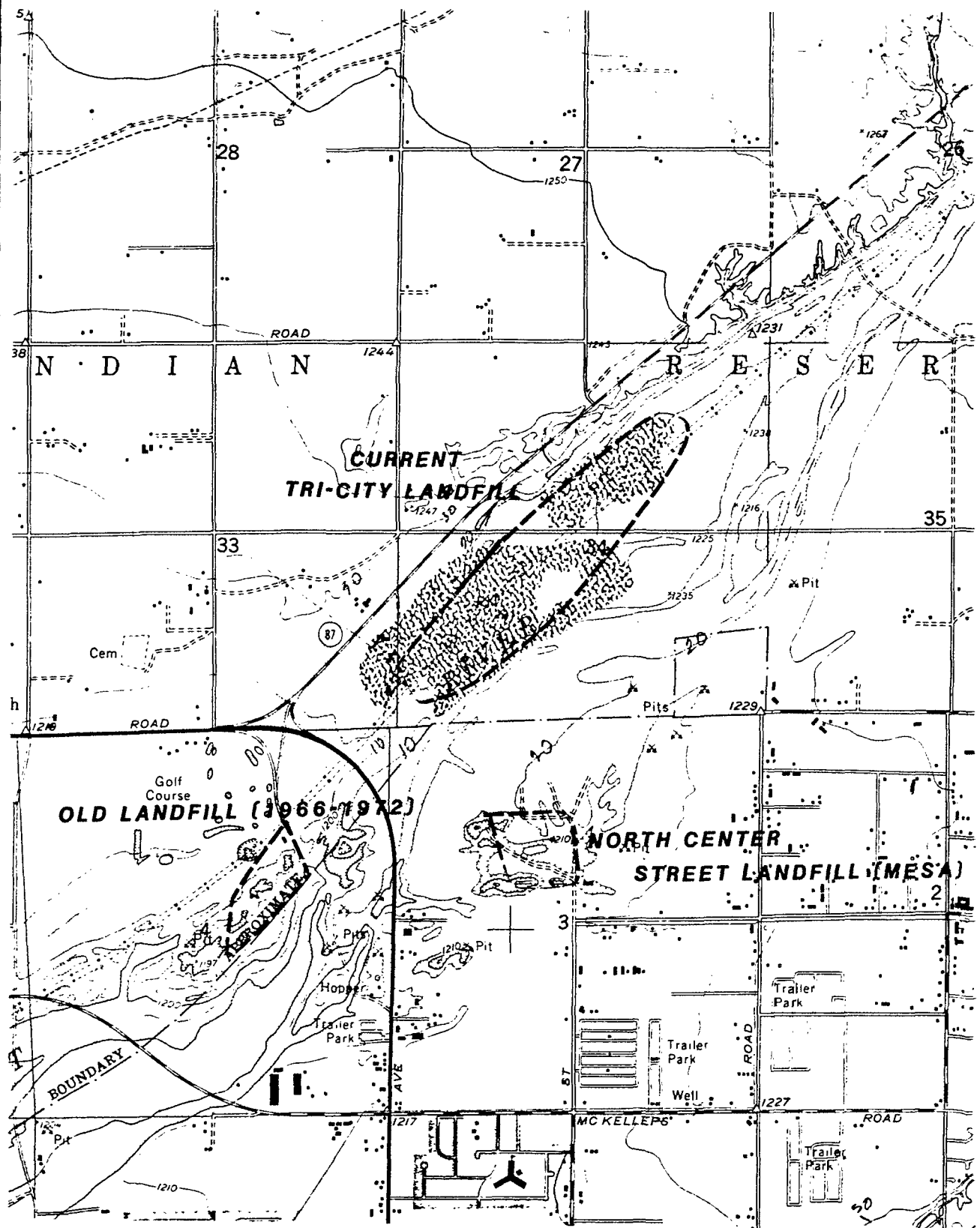
The Tri-City Landfill, located on the Beeline Highway in the Salt River Indian Reservation just north of Mesa, Arizona (see Figure 1 - Site Location Map), is owned and operated by the Salt River Pima-Maricopa Indian Community. The landfill operates as a sanitary landfill accepting municipal trash and construction debris from the cities of Mesa, Scottsdale, Phoenix and Chandler. The landfill has operated at its current 250-acre site since late 1972. From about 1966 to 1972, Tri-City Landfill conducted its landfiling operation at a small piece of property, approximately five to six acres, on the corner of McDowell Road and the Beeline Highway. The locations of the old and current landfills are identified on Figure 1. Little information is available on the operations of the former Tri-City Landfill.

The current site is located adjacent to the Salt River, which is now used for flood control. The landfill is located in an area that was excavated prior to 1972 by the Union Rock Company as part of their quarry activities in the Salt River flood plain. Union Rock now operates at a location adjacent to the Tri-City Landfill and provides clean borrow material for landfill operations. The landfill site consists of three disposal areas, an office with a weigh-in location and a fuel station for the eight pieces of heavy equipment used on-site. All three fuel-storage tanks are aboveground and stored on a concrete pad.

2.2 Process Description

The current operations at the landfill involve computerized weigh-in, separation of metals from trash, recycling of metals and disposal of construction debris and municipal trash. The landfill is permitted to accept only municipal trash, construction debris and metals. Due to their lack of RCRA status, Tri-City can not accept hazardous materials or hospital waste. The landfill operates six

FIGURE 1.0: SITE LOCATION MAP



NOT TO SCALE

SOURCE: USGS MESA QUAD, 1973

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days a week and employs 15 people. An "open face" method of landfilling is used at the facility; this involves placing the municipal waste and/or construction debris on the face of the landfill and covering it with clean fill. Quarry activities by Union Rock provide most of the clean fill. Municipal trash is covered at the end of every work day; construction debris is covered at least two times a week. Separate disposal locations are maintained for municipal trash and construction debris. Metal trash is recycled by a contractor in another on-site location by a private contractor. This contractor compacts and bails the metals for sale.

Municipal trash is received from the reservation and the surrounding cities of Scottsdale, Mesa, Tempe, Chandler and Phoenix as well as from local residents. Approximately 2,500 tons of trash and construction debris are accepted by the landfill per day. Depth of trash in the landfill is approximately 40 feet. Local construction firms dispose of construction debris on-site; this debris is kept separate from the trash and is used to maintain a berm built to prevent the landfill from flooding.

Liquids are not currently accepted at the landfill and water is not placed on the landfill as part of routine maintenance operations. Until approximately eight years ago, sewage from the reservation was disposed in on-site holding ponds. The ponds have since been filled in and reservation sewage is now sent to a treatment plant.

Since it is located on an Indian Reservation, Tri-City Landfill has discretion concerning what can be disposed there as long as no RCRA hazardous wastes are accepted. For example, no hospital waste except kitchen waste is accepted, even though similar publicly-owned facilities accept hospital waste. During the site inspection, the operator relayed information that prospective disposers have been turned away at the gate due to their attempted disposal of improper materials at the site; these attempted disposers include Motorola and various local hospitals (see Appendix D).

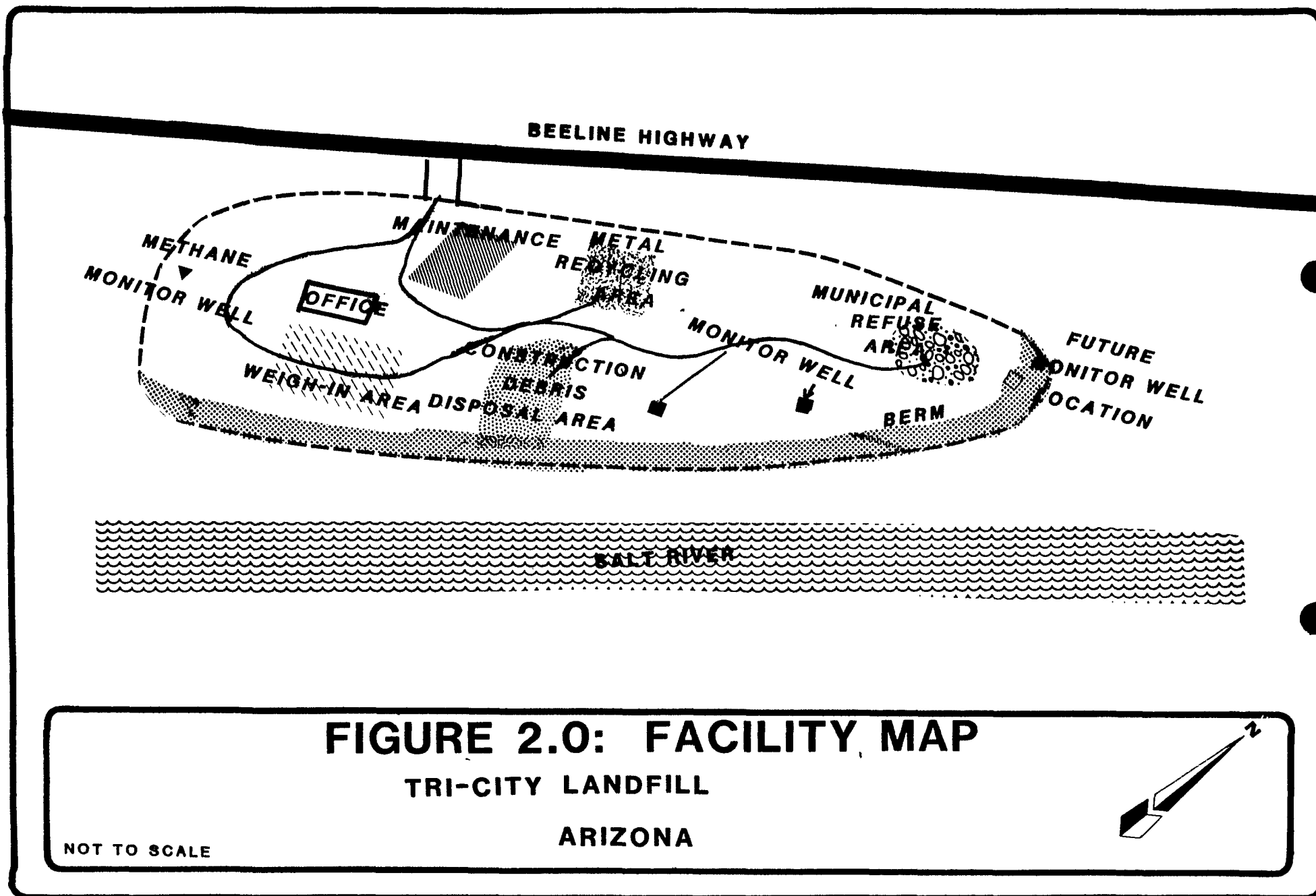
The only major change in operation since the landfill's inception in 1972 is that prior to 1980, metals were not separated out from the rest of the waste. Also, a 400 to 500-foot wide berm has been constructed on-site adjacent to the river bank to prevent washout of landfill debris during the Salt River flood stage (see Figure 2.0).

From 1966 to 1972, Tri-City Landfill operated at a nearby location on the corner of McDowell Road and the Beeline Highway (see Figure 1.0). The approximate size of the site is five acres. It is unknown as to the quantity of waste accepted by the old Tri-City Landfill. The types of wastes accepted were presumably similar to those currently accepted by Tri-City Landfill, according to landfill operators. There have been no documented complaints associated with this facility. There are no monitor wells on the property.

2.3 Waste Management Practices

Due to the site's location on Indian lands, there is little regulatory agency oversight of the landfill. Since the site operates as a sanitary landfill, it has no RCRA status. However, the landfill has two monitor wells on-site which are sampled quarterly by the operator for general water quality parameters of metals, TDS and coliform. Aside from the 205J sampling efforts, no organic analyses are apparently performed. The on-site wells are 300 feet deep and intercept groundwater at approximately 250 feet below the landfill surface. Monitoring results are reported to the EPA's water quality division. The operator plans to install an additional monitor well in the location of the new fill area. A methane monitor well is located near the office at the landfill.

In 1980 during a period of flooding, the Salt River eroded away parts of the landfill and debris was observed floating down the river (Contact Report with Barry Abbott, AZDOHS, October 28, 1986). After that flood, the landfill was filled in, however, little flood protection was constructed. During the site inspection, it appeared



that the operators were working to ameliorate the situation by widening the river channel to a width of 1,200 feet and by constructing a 400 to 500-foot wide berm.

3.0 ENVIRONMENTAL SETTING

As previously stated, the site is located on the Salt River Indian Reservation just north of the City of Mesa and east of Scottsdale, Arizona. The Salt River forms the site's southeastern boundary. The area surrounding the landfill is primarily rural, residential Indian land with the City of Mesa located on the other side of Salt River (see Figure 1.0). Across the street from the landfill is an old oil refinery which is no longer in operation. This facility is owned by the tribal community. On the southern side of the Salt River is the North Center Street Landfill (EPA ID No. AZD981691496) formerly operated by the City of Mesa; waste management practices at this landfill are not investigated within the scope of this site inspection. The population of the Indian Reservation is approximately 4,500; the population of the City of Mesa is 272,975.

3.1 Geology

3.1.3 Regional Geology

The region is in the southern Basin and Range Province. Graben-like basins between the mountain ranges are filled with deep accumulations of sediment (Ref. 3).

The Salt River Basin is both a geologic structure and a groundwater basin. Bedrock hills in the Phoenix area divide this groundwater basin into a western and an eastern sub-basin (Reeter and Remic, 1986, Sheet 1 of 3). The Tri-City Landfill is in the eastern sub-basin.

Throughout most of the Salt River Basin the tertiary basin sediments can be separated into: 1) a rather permeable upper alluvial unit; 2) a less permeable and finer grained middle unit; and 3) a lower conglomerate unit (U.S. Army Corps of Engineers, 1979 p.II-6). Along the Salt River permeable recent sands and gravels fill the more recent channels.

3.1.2 Local Geology

The Tri-City Landfill is located on the flood plain of the Salt River. From examination of local aerial photos, it appears the Salt River could be called a braided stream during the infrequent periods of flow.

Cooley (1973) shows the total thickness of water-bearing sediment under the site to be over 1,200 feet. Based on their earlier investigations, SCS consultants to the EPA and the Salt River Community (1980, p-3) describes the upper alluvium as:

"The upper 140 to 180 materials are primarily unconsolidated coarse-grained sands, gravels, and boulders, which locally contain relatively large amounts of silt and some clays. The log of a nearby Union Rock Company production well indicates a well-developed clay zone at 30 feet. Nearby percolation test borings indicate heavily cemented silty sand or caliche at about 15 feet. Bedding in this unit is generally indistinct and chaotic, and is highly variable in thickness."

SCS (1980, p-5) mentions a percolation test of .34 cm/sec. They also give a range of 3.53×10^{-3} to 1.41×10^{-2} cm/sec as percolation rates for the river channel and bank. These values are consistent with percolation values for the local alluvial soils mentioned in a county soils report (Adams, 1974, p-43).

3.2 Groundwater Quality

As a result of sampling performed by Ken Schmidt and Associates, consultants to MAG, in 1980 and more recently in 1985, it is apparent that the shallow groundwater beneath the landfill is contaminated with low levels of volatile organic chemicals such as trichloroethylene (TCE), perchloroethylene (PCE) and Freon 113. A complete list of contaminants is found in Table 1.0.

Table 1.0

Chemicals Found in Shallow Groundwater
Beneath Tri-City Landfill

<u>Chemical</u>	<u>Concentration (ppb)</u>
Trichloroethylene (TCE)	1.2 - 12
Perchloroethylene (PCE)	2.7 - 5.1
Freon 113	1.2 - 3.6
1,1-dichloroethene (1,1-DCE)	ND - 4.2
trans-1,2-dichloroethene (t-1,2-DCE)	2.5 - 7.9
1,1-dichloroethane (1,1-DCA)	12 - 13
1,2-dichloroethane (1,2-DCA)	ND - 0.7
1,1,1-trichloroethane (1,1,1-TCA)	ND - 1.2

ND = not detected.

It is uncertain as to the source of the contamination. The landfill may be a contributory factor to the contamination, however there is no documentation of these chemicals being disposed at the facility. In 1981 Motorola filed a CERCLA 103(C) notification attesting to their disposal of 5 cubic feet of BBr_3 , POCl_3 , antimony pentafluoride, arsenic trioxide and boron trifluoride as a result of electronic part cleaning. The area is surrounded by CERCLA Superfund sites such as Indian Bend Wash, Motorola-Mesa facility, Old City of Tempe Landfill; these sites may be a source of the TCE contamination, and are identified on Figure 3. Area groundwater pumping and flow gradients make it difficult to pinpoint sources of contamination. From information obtained from landfill operators during the site inspection, it appears that another contributory factor may be area hospitals which allegedly have had problems with locations to dispose of their waste and may have deposited them at Tri-City. The oil refinery site may also be a contamination source. No further characterization activities have occurred to determine the source of the contamination. The MAG Report (Ref. 8) recommended installation of additional monitor wells in the vicinity of the landfill.

3.3 Hydrology

3.3.1 Surface Water

Salt River: The site is located on the 100-year flood plain of the Salt River, adjacent to the river channel (SCS, 1980). The Salt

River rises in the Mazatal Mountains east of Phoenix (U.S. Geological Survey, 1972). Several dams are located there to store river water for sustained downstream use (U.S. Army Corps of Engineers, 1979). Thus, the river channel is normally dry and normally flows in very wet years when water is released from upstream dams to the river (SCS, 1980).

As previously stated, flood waters rose out of the river channel in the winter of 1978-1979 to wash a "large volume of deposited waste" out of the landfill and down the Salt River (SCS, 1980, p-9). After the 1979 flooding, one large and three small berms were constructed to protect various parts of the landfill.

The berms were partially constructed of solid waste which was mixed with and covered by sand, gravel and boulders (local river deposits). Flooding occurred again in the winter of 1979-1980. The berms were eroded and solid waste built into their cores was eroded and exposed (SCS, 1980, p-7 and 8). Thus, in at least two cases, solid waste has been inadvertently released from the landfill to surface water.

The flood "release" hazard will probably persist, even with engineered flood protection. There is always a small probability of breaching any berm or levee in any flood year. Continued maintenance and surveillance will probably be required to assure similar future releases of solid waste do not occur.

Local Drainage: No closure or final drainage plan was available during the course of the site inspection. However, past reports and aerial photography from 1977 and 1986 will allow some discussion of potential problems.

The 1977 photos show ponded waters, with the area generally rough and poorly graded. On-site observations in 1980 indicated drainage was mostly internal and internal surface runoff was contributing to ponding. Ponded water was observed seeping into completed landfill areas (SCS, 1980, p-9).

The 1986 photos show a more uniform surface with no ponded water. The composition of the graded surface is unknown, but it is assumed to be the locally available flood plain alluvium. This assumption is based on the earlier use of coarse-grained local soils for the flood control berm and final cover (SCS, 1980, p-9 and 15).

The Soil Conservation Service reports that the local alluvial soils have "very rapid permeability" in their natural state (.63 to 2 in/hr or .26 to .083 cm/sec). The borrowed "soils" would have "high permeability" even when compacted as embankments, dikes or levees (Adams, 1974, p.46-47).

Due to the permeability of compacted soil, one would expect that a large percent of rainfall would infiltrate into the soils rather than running off as expected. This would be the case even with the area graded to promote runoff.

For this specific landfill, one can reasonably expect more rainwater to infiltrate into the waste than would normally be anticipated (based on the net rainfall calculations of 6.69 inches for November through April). This has both a positive and negative side. The positive aspect is that erosion from runoff within the landfill should be minimal. Thus, erosion should not be a significant problem.

The negative aspect is that more water (than normally expected) will percolate into the waste. After the waste becomes saturated, this percolation water will leave the waste as leachate. The documents reviewed indicate that prior to 1980, waste was interred directly on the permeable alluvium. Water from river floods has saturated waste interred prior to 1979 and ponded runoff was observed infiltrating into waste in 1980. There were no engineered barriers between waste and permeable alluvium and there was no leachate collection system (SCS, 1980). Investigation for this SI report also found no evidence that engineered barriers or leachate collection systems had been installed in disposal areas.

In areas where waste has been saturated by river flooding or surface water infiltration, it is reasonable to expect that infiltration of rain water will generate an equal amount of leachate. This leachate will leave the interred waste to enter the underlying alluvium and will eventually join the regional groundwater.

3.3.2 Groundwater

Local Hydrology: The site is in the East Subarea of the Salt River Basin. Due to overpumping and a falling water table, the East Sub-basin no longer discharges groundwater to sub-basins further down the Salt River.

In recent years, local groundwater gradients have sloped toward several large cones of depression caused by local heavy pumping. In the East Sub-basin the nearest cones are located near Scottsdale and a few miles east in an agricultural area (U.S. Army Corps of Engineers, 1978, p II-8).

The site is on the fringe of the cone to the east as indicated by 1982 water table contour data (Reeter and Remic, 1986, sheet 1 of 3). Thus, one would normally expect ground water to flow toward the east or southeast. This gradient is also confirmed by Schmidt and Associates (1986, Plate 4).

The local ground water flow may be complicated by occasional infiltration from the Salt River during infrequent floods. Water percolating to the water table could be expected to form a local groundwater mound. During periods of mounding, flow at the top of the water table may actually be to the west. As the mound dissipates, regional flow should again be toward the east.

This may be significant for monitoring to 1) determine upgradient conditions; and 2) interpret monitoring well data. The upgradient wells may have to be located at a greater than normal distance west of the site since there is some reason to suspect the groundwater flow may, on occasions, be temporarily reversed.

The depth to the water table fluctuates with pumping and with local or regional recharge. The hydrograph of a well near the site shows several cycles of rising and falling water in the period from 1976 to 1984. The water was as high as about 100 feet below ground level and dropped to almost 240 feet below ground level (Reeter and Remic, 1986, well "I", Plate 2 of 3).

There is reason to believe that contaminants entering groundwater at the site could spread to any pumping level in the East Sub-basin. The middle, fine-grained alluvial unit (paragraph 3.2.1, this report), which is present throughout most of the basin, may be missing from the local section (Schmidt, 1986, p-17). In other parts of the basin, the middle unit could be considered an aquitard or aquiclude which would curtail downward ground water flow. This potential safety factor appears to be missing near the site.

Wells:

The wells within a three-mile radius of the site are listed on Table 2.0 and shown on Figure 3.0. These wells produce water for both agricultural and domestic use.

The known wells west and northwest of the site are too far away (over a mile away) to be considered upgradient wells. Contaminants mentioned in past reports (and in the previous section) have been found in on-site groundwater and groundwater east of the site.

The quality of groundwater approaching the site from the west is not known. From tests on the Indian Health Center well (over 1 1/2 miles to the northwest), one can postulate it is probably of better quality than the water moving east from the site. The Indian Health Center well draws water from an area that is also upgradient from the landfill.

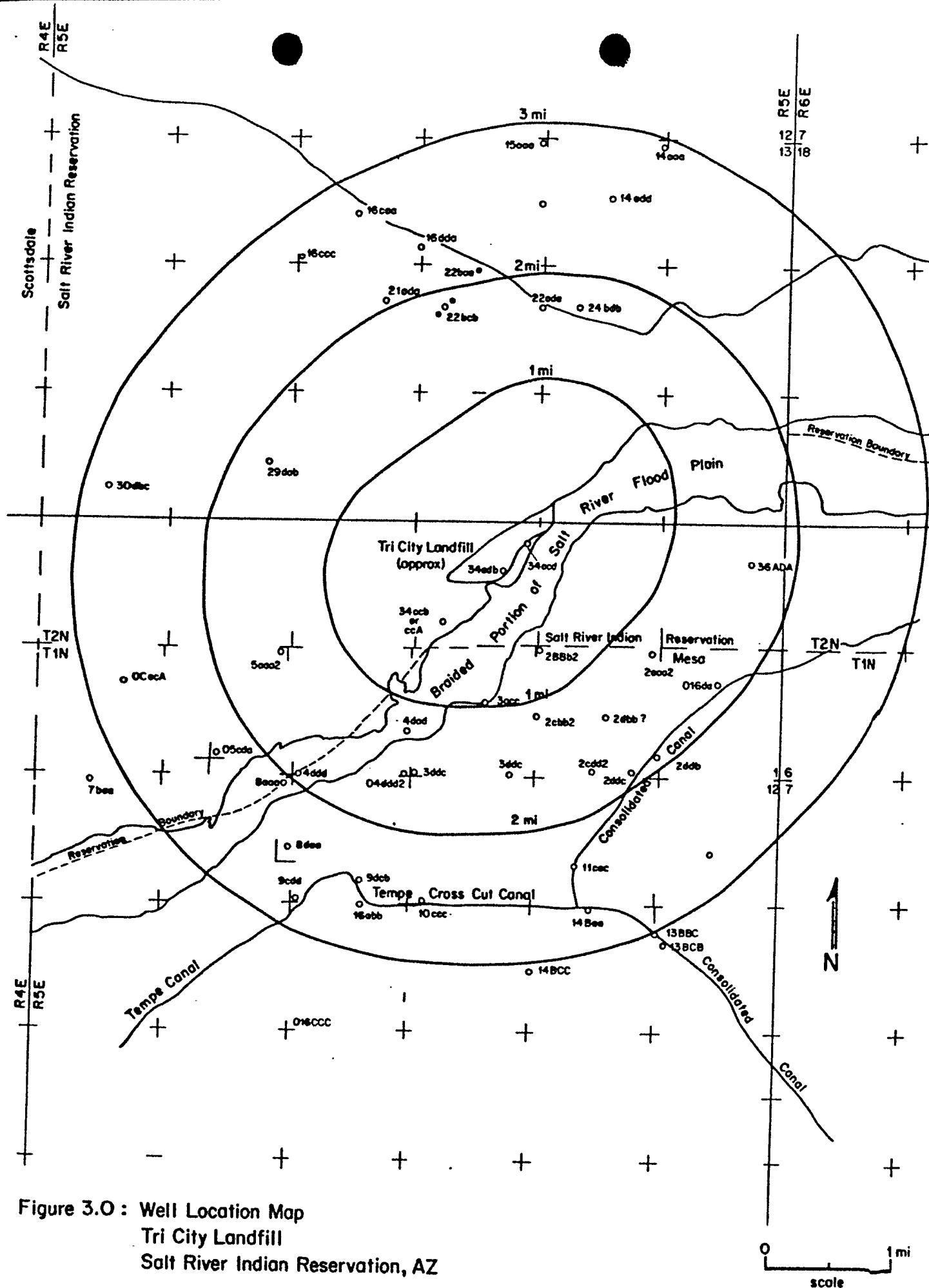


Figure 3.0 : Well Location Map
Tri City Landfill
Salt River Indian Reservation, AZ

TABLE 3 SELECTED WELLS WITHIN 3 MILES OF
THE TRI-CITY LANDFILL

Well Designation	Total Depth ft.	Top of Perforations ft.	Use	Reference, Comments
A-1-5 01bda	686	215	Irrigation	DWR Inventory, located adjacent to Southern Canal
02aaa2	1,125	350	Irrigation	DWR Inventory, SCS, 1980, used for Water Quality data
02bbb2	640	300	Irrigation	Schmidt & Assoc. 1986, p.10, Table 1 well in this table slightly differed from that shown by Arizona DWR
02cbb2	800	200	Irrigation	DWR Inventory, sampled by SCS, 1980 and by Schmidt & Assoc. 1986 (SRP well)
02cdd2	1,000	300	Irrigation	DWR Inventory
02dbb	1,120	290	Unknown	DWR Inventory, sampled by SCS, 1980
02ddc	500	200	Irrigation	DWR Inventory
03acc	600	50	Unknown	Data from Schmidt & Assoc. 1986, tested above Arizona Action Levels for TCE and PCE, not on Arizona DWR Inventory
03ddc	500	200	Irrigation	DWR Inventory, sample by Schmidt & Assoc. 1986, SCS used it for Water Quality data 1980
04dad	348	300	Industrial	Schmidt & Assoc. 1986, (Mesa Sand and Rock well)
04ddd2	812	300	Irrigation	DWR Inventory, sampled by SCS 1980
05aaa2	1,125	350	Irrigation	DWR Inventory
05cda	495	215	Industrial	DWR Inventory
06aca	650	400	Unknown	DWR Inventory (plots in a trailer park)
08aaa2	360	150	Industrial & Domestic	DWR Inventory
08daa	300	Unknown	Domestic	DWR Inventory
09dcb	900	300	Irrigation	DWR Inventory, also on USGS topographic map as adjacent to the Tempe Canal
10ccc	701	300	Irrigation	DWR Inventory, also on USGS topographic map
11cac	700	210	Irrigation	DWR Inventory
14baa	1,180	180	Irrigation	DWR Inventory, also on USGS topographic map by the Tempe Cross-Cut Canal
14bcc	1,000	400	Irrigation	DWR Inventory, sampled by Schmidt & Assoc. 1986
A-2-5 15aaa	658	275	Public Supply	DWR Inventory, also on USGS topographic map
16caa	493	Unknown	Irrigation	DWR Inventory, also on USGS topographic map
16dda	432	Unknown	Unused	DWR Inventory, also on USGS topographic map on the south side of the Arizona Canal
22bcb	Unknown	Unknown	Public Supply	Sampled by SCS, 1980 for Water Quality data, not shown on DWR Inventory
A-2-5 22ada	Unknown	Unknown	Irrigation	DWR Inventory, also shown on USGS topographic map
23dbb	750	245	Irrigation	DWR Inventory
29dab	260	Unknown	Domestic	DWR Inventory
30dbc	920	530	Public Supply	DWR Inventory (Indian Health Center Well)
31acd	600	275	Irrigation	DWR Inventory
34acd	232	210	Monitor Well	Schmidt & Assoc. 1986, Plate 1, Table 1 and 2
34adb	300	240	Monitor Well	Schmidt & Assoc. 1986, Plate 1, Table 1 and 2
34cca	371	200	Industrial	Schmidt & Assoc. 1986, call it Union Rock Well, DWR Inventory lists as A-2-5, 34ccc

The actual upgradient water quality cannot be resolved without additional well data. Collection of this data would require installation of additional wells, probably placed between the site and the Indian Health Center well.

4.0 SUMMARY OF FIT INVESTIGATIVE EFFORTS

A CERCLA Site Inspection of Tri-City Landfill was conducted on November 24, 1986 by FIT members Jane Hoppin and Doug Russell. The site inspection began at 10:00 a.m. with a meeting at the Salt River Pima-Maricopa Indian Reservation's Department of Public Works offices. Present at this meeting were Chuck Freeman, Ronnie Knox and Dean Jackson of the Indian Health Service, Buddy Gates, the director of Public Works for the reservation and Chuck Gabriel, the landfill supervisor. At this meeting, hazardous materials practices of the landfill were discussed as well as the EPA's role in supervision of sanitary landfills on Indian lands. Following this meeting, Chuck Gabriel gave a tour of the landfill and explained its history and operation. Photodocumentation of this tour is included in Appendix C.

Housekeeping practices at the site appeared to be good. The berm constructed from trash and debris appeared to have some of the clean fill material worn away so that trash and debris were exposed. Wash water from truck cleaning was present on the ground, however staining was not present.

The agencies involved with the site were contacted: Indian Health Service (IHS) and the EPA. Little information on the site was available due to the the IHS's advisory role and the EPA's role in supervision of sanitary landfill. The Arizona Department of Health Services and MAG have no regulatory authority at this site.

5.0 HRS FACTORS

The following HRS factors, used to rank uncontrolled hazardous waste sites according to Uncontrolled Hazardous Waste Site Ranking System, A User's Manual, are applied to the Tri-City Landfill.

- o Observed Release: An observed release to groundwater has been reported. However, due to the fact that no upgradient sampling has occurred and that there is no documented disposal of these chemicals at the landfill, this will currently preclude the site from NPL listing.
- o Direct Contact/Fire and Explosion: None documented.
- o

<u>Waste Type</u> (found in groundwater)	<u>Groundwater toxicity/persistence value</u>
TCE	12
PCE	18
Freon 113	12
1,1-DCE	15
t-1,2-DCE	12
1,1-DCA	12
1,2-DCA	12
1,1,1-TCA	18
- o Waste Quantity: Unknown.
- o Groundwater: Groundwater in the area is used primarily for irrigation and industrial use, though there are some drinking water wells which are drawing water from within a three-mile radius of the site. The site is located in a recharge area for the local drinking water aquifer. The nearest drinking water well is within two miles of this site.
- o Surface Water: The Salt River is immediately adjacent to the site. Since the area has less than 20 inches of rainfall a year, this intermittent river can be considered surface water for HRS purposes. No observed releases to surface water have been documented. However the potential for a release of contaminants to surface water exists due to the documented

incidences of flooding of the Salt River and inundation of the landfill in the past, as discussed in Section 3.3. Although subsequent flood control measures have been implemented, it is unknown if they will be effective.

- o Population: The population of the City of Mesa is 272,975. Drinking water for this population is drawn from wells within three miles of the site. The population of the Salt River Indian Reservation, 4,500 people, is also dependent on groundwater for drinking water.

In order to score this site for inclusion on the National Priorities List (NPL), it will be necessary to directly attribute the groundwater contamination to the site by finding clean upgradient wells and by securing a record of disposal of chemicals from potentially responsible parties.

Documentation of an observed release to surface water would require collection of samples immediately following or during flood conditions in the Salt River. Due to the unpredictable nature of flood events it is unknown when such sampling could take place, and therefore is considered an unlikely route for HRS points.

6.0 RECOMMENDATIONS AND CONCLUSIONS

Tri-City Landfill operates as a sanitary landfill on the Salt River Pima-Maricopa Indian Community Reservation east of Scottsdale, Arizona. Detectable quantities of volatile organic chemicals have been found in groundwater on-site; the source of these chemicals is unknown.

Therefore, FIT recommends the following further action:

- o Upgradient wells should be installed to ascertain the source of the contamination as well as to further define hydro-geologic conditions. Sampling should attempt to assess current groundwater conditions as well as identify the contamination source. Well locations and installation should be coordinated with any future activities resulting from the MAG studies.
- o A PRP Search should be performed to identify possible improper waste disposal at the landfill. RCRA 3007 letters should be sent to Motorola, area hospitals and other possible disposers in the area. A potential list provided by the landfill operator is furnished in Appendix D.
- o CERCLA preliminary assessments should be conducted on the North Center Street Landfill and the former oil refinery across the street from the landfill to determine their possible contribution to groundwater contamination.

After collection of upgradient data and disposal information, FIT recommends preparation of an HRS package for this site for possible inclusion on the National Priorities List.

7.0 REFERENCES

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4. Peeter, R.W. and Remick, W.H., 1986 Maps showing groundwater conditions in the West Salt River, East Salt River, Lake Pleasant, Carefree and Fountain Hills sub-basins of the Phoenix active management area, Maricopa, Pinal and Yavapai Counties-- 1983 (data), Arizona Department of Water Resources, Hydrologic Map Series, Report Number 12 (3 map sheets in cover text on some maps).
5. SCS Engineers Final Report, Assessment of the Tri-Cities Landfill in the Phoenix Metropolitan Area. Presented to the U.S. Environmental Protection Agency, prepared by SCS Engineers (Stearns, Conrad and Schmidt) Long Beach, CA 90807
6. SCS Engineers, 1980 Assessment of the Tri-Cities Landfill in the Phoenix Metropolitan Area. Presented to U.S. EPA, Region IX, compiled by SCS Engineers, 4014 Long Beach Blvd., Long Beach, CA 90807, under contract 68-01-6009, work assignment 80-1.
7. Schmidt, K.D., 1980, Groundwater Conditions Near the Tri-Cities Landfill, (a report) prepared for the Maricopa Association of Governments, 208 Program, by Kenneth D. Schmidt, Groundwater Consultant, Phoenix, Arizona, January 15, 1980. 9 pages.
8. Schmidt, K.D., and Associates (1986) Volatile Organic Chemicals and DBCP in Groundwater in the Mesa Area. (Report) Prepared for the Maricopa Association of Governments, Phoenix, Arizona (August 1986).
9. U.S. Army Corps of Engineers, 1978, Groundwater Quality in the Major Basins of Maricopa County, Final report. Prepared for the Maricopa MAG Agencies, Consultant Kenneth D. Schmidt (Maricopa Association of Governments, 208 Program).
10. U.S. Geological Survey (1972) State of Arizona (Map 1:500,000 scale, Revision of 1981).

P.A./S.I. CONTACT LOG

Facility Name: Tri-City Landfill
Facility ID: AZD980735781

Name	Affiliation	Phone #	Date	Information
Bill Davis	Salt River Project (SRP)	(602) 236-2881	10/28/86	See Contact Report.
Barry Abbott	AZDOHS	(602) 257-2239	10/28/86	See Contact Report.
Ron Leach	EPA-RCRA	(415) 974-7523	10/28/86	See Contact Report.
Chuck Graff	AZDOHS	(602) 257-2357	10/29/86	Suggested that I get a copy of the MAG Report from Lindy Bauer of MAG at (602) 254-6308.
Amy Heuslein	BIA Realty	(602) 241-2281	10/19/86	See Contact Report.
Lindy Bauer	MAG	(602) 254-6308	10/29/86	To receive a copy of the report, send \$15.00 to MAG, 1820 W. Washington, Phoenix AZ 85007
Dean Jackson	IHS-Env. Health Service	(602) 263-1650	11/5/86	See Contact Report.
Chuck Freeman	IHS-EHS	(602) 263-1576	11/5/86	See Contact Report.
Sam Hillard	BIA Superintendent			
Frank Mertely	Community Manager	(602) 941-7277	11/10/86	Want a letter prior to arranging SI. Send it to: Salt River Pima-Maricopa Indian Community Route 1, Box 216 Scottsdale, AZ 85256 Attn: Community Manager

Appendix A
Site Inspection Report Form

**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION**

I. IDENTIFICATION
01 State 02 Site Number
AZ 980735781

II. SITE NAME AND LOCATION

01 Site Name (Legal, common, or descriptive name of site) <u>Tri-City Landfill</u>		02 Street, Route No., or Specific Location Identifier <u>Beeline Highway</u>			
03 City <u>Salt River Indian Reservation</u>	04 State <u>AZ</u>	05 Zip Code <u>85256</u>	06 County <u>Maricopa</u>	07 County Code <u>013</u>	08 Cong Dist <u>01</u>
09 Coordinates Latitude _____ Longitude _____		10 Type of Ownership (Check one) <input type="checkbox"/> A. Private <input type="checkbox"/> B. Federal <input type="checkbox"/> C. State <input type="checkbox"/> D. County <input type="checkbox"/> E. Municipal <input checked="" type="checkbox"/> F. Other <u>Tribal</u> <input type="checkbox"/> G. Unknown			

III. INSPECTION INFORMATION

01 Date of Inspection <u>11 / 24 / 86</u> Month Day Year		02 Site Status <input checked="" type="checkbox"/> Active <input type="checkbox"/> Inactive	03 Years of Operation <u>1972</u> <u>present</u> _____ Beginning Year Ending Year	
04 Agency Performing Inspection (Check all that apply) <input type="checkbox"/> A. EPA <input checked="" type="checkbox"/> B. EPA Contractor <u>Ecology & Environment</u> <input type="checkbox"/> C. Municipal <input type="checkbox"/> D. Municipal Contractor <input type="checkbox"/> E. State <input type="checkbox"/> F. State Contractor _____ <input type="checkbox"/> G. Other _____ (Name of firm) (Name of firm) (Specify)				
05 Chief Inspector <u>JANE HOPPIN</u>		06 Title <u>toxicologist</u>	07 Organization <u>EE</u>	08 Telephone No. <u>415 777 2811</u>
09 Other Inspectors <u>Doug Russell</u>		10 Title <u>Environmental Scientist</u>	11 Organization <u>EE</u>	12 Telephone No. <u>415 777 2811</u>
13 Site Representatives Interviewed <u>Burnett 'Buddy' Gates</u>		14 Title <u>Director, Public Works</u>	15 Address <u>Route 1, Box 216</u> <u>Scottsdale AZ 85256</u>	16 Telephone No. <u>415</u> <u>(602) 941-7308</u>
<u>Charles Gabriel</u>		<u>Landfill Operations Manager</u>		()
<u>Chuck Freeman</u>		<u>Indian</u>	<u>PIMC Bldg #5</u>	<u>(602) 263-1576</u>
<u>Dean Jackson</u>		<u>Health</u>	<u>4212 N 16th St</u>	()
<u>Ronnie Knox</u>		<u>Service</u>	<u>Phoenix, AZ 85016</u>	
17 Access Gained By (Check one) <input checked="" type="checkbox"/> Permission <input type="checkbox"/> Warrant		18 Time of Inspection <u>10am</u>	19 Weather Conditions <u>warm, sunny ~65°F</u>	

IV. INFORMATION AVAILABLE FROM

01 Contact		02 Of (Agency/Organization)		03 Telephone No. ()	
04 Person Responsible for Site Inspection Form <u>Jane Hoppin</u>		05 Agency	06 Organization <u>EE</u>	07 Telephone No. <u>(415) 777 2811</u>	08 Date <u>12 / 09 / 86</u> Month Day Year

1. IDENTIFICATION	
01 State	02 Site Number
AZ D	98073578

<p>01 Physical States (Check all that apply)</p> <p><input type="checkbox"/> A. Solid <input type="checkbox"/> E. Slurry</p> <p><input type="checkbox"/> B. Powder, Fines <input type="checkbox"/> F. Liquid</p> <p><input type="checkbox"/> C. Sludge <input type="checkbox"/> G. Gas</p> <p><input checked="" type="checkbox"/> D. Other <u>Trash</u> (Specify)</p>	<p>02 Waste Quantity at Site (Measure of waste quantities must be independent)</p> <p>Tons _____</p> <p>Cubic Yards _____</p> <p>No. of Drums _____</p>	<p>03 Waste Characteristics (Check all that apply)</p> <p><input type="checkbox"/> A. Toxic <input type="checkbox"/> E. Soluble <input type="checkbox"/> I. Highly Volatile</p> <p><input type="checkbox"/> B. Corrosive <input type="checkbox"/> F. Infectious <input type="checkbox"/> J. Explosive</p> <p><input type="checkbox"/> C. Radioactive <input type="checkbox"/> G. Flammable <input type="checkbox"/> K. Reactive</p> <p><input type="checkbox"/> D. Persistent <input type="checkbox"/> H. Ignitable <input type="checkbox"/> L. Incompatible</p> <p><input checked="" type="checkbox"/> M. Not Applicable</p>
--	---	---

Category	Substance Name	01 Gross Amount	02 Unit of Measure	03 Comments
SLU	Sludge			
OLW	Oily Waste			
SOL	Solvents			
PSD	Pesticides			
OCC	Other Organic Chemicals			
IOC	Inorganic Chemicals			
ACD	Acids			
BAS	Bases			
MES	Heavy Metals			

[illegible]

Category	01 Feedstock Name	02 CAS Number	Category	01 Feedstock Name	02 CAS Number
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

1. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 State 02 Site Number

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. Groundwater Contamination 02 ☒ Observed (Date: 8/86) ☐ Potential ☐ Alleged
03 Population Potentially Affected: 272,975 04 Narrative Description

Groundwater in the area near the ~~the~~ landfill has had TCE and other chlorinated solvents detected in it.

01 ☒ B. Surface Water Contamination 02 ☐ Observed (Date: _____) ☒ Potential ☐ Alleged
03 Population Potentially Affected: _____ 04 Narrative Description

In 1980, the Salt River adjacent to the landfill overflowed and washed landfill debris throughout the Salt River Channel.

01 ☐ C. Contamination of Air 02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
03 Population Potentially Affected: _____ 04 Narrative Description

01 ☐ D. Fire/Explosive Conditions 02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
03 Population Potentially Affected: _____ 04 Narrative Description

01 ☐ E. Direct Contact 02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
03 Population Potentially Affected: _____ 04 Narrative Description

01 ☐ F. Contamination of Soil 02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
03 Area Potentially Affected: _____ 04 Narrative Description

01 ☒ G. Drinking Water Contamination 02 ☒ Observed (Date: 8/86) ☒ Potential ☐ Alleged
03 Population Potentially Affected: 272,975 04 Narrative Description

As reported in "Volatile Organics and DBCP in Mesa Ground-water" in August 1986

01 ☐ H. Worker Exposure/Injury 02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
03 Workers Potentially Affected: _____ 04 Narrative Description

01 ☐ I. Population Exposure/Injury 02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
03 Population Potentially Affected: _____ 04 Narrative Description

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

1. IDENTIFICATION

01 State 02 Site Number

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. Damage to Flora
04 Narrative Description

02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged

01 ☐ K. Damage to Fauna
04 Narrative Description

02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged

01 ☐ L. Contamination of Food Chain
04 Narrative Description

02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged

01 ☐ M. Unstable Containment of Wastes
(Spills/Runoff/Standing liquids, Leaking drums)
03 Population Potentially Affected: _____

02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged
04 Narrative Description

01 ☐ N. Damage to Offsite Property
04 Narrative Description

02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged

01 ☐ O. Contamination of Sewers, Storm/Drains, WWTPs
04 Narrative Description

02 ☐ Observed (Date: _____) ☐ Potential ☐ Alleged

01 ☒ P. Illegal/Unauthorized Dumping
04 Narrative Description

02 ☐ Observed (Date: _____) ☒ Potential ☐ Alleged

The landfill has had problems with local hospitals
and Motorola attempting to dispose inappropriate wastes on-site

05 Description of Any Other Known, Potential, or Alleged Hazards

III. TOTAL POPULATION POTENTIALLY AFFECTED: 272,000

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

City of Mesa Planning Department
Site Inspection Field Notes

**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION**

I. IDENTIFICATION
01 State 02 Site Number

II. PERMIT INFORMATION

01 Type of Permit Issued (Check all that apply)	02 Permit Number	03 Date Issued	04 Expiration Date	05 Comments
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. Local (Specify)				
<input type="checkbox"/> I. Other (Specify)				
<input checked="" type="checkbox"/> J. None				

III. SITE DESCRIPTION

01 Storage/Disposal (Check all that apply)	02 Amount	03 Unit of Measure	04 Treatment (Check all that apply)	05 Other
<input type="checkbox"/> A. Surface Impoundment			<input type="checkbox"/> A. Incineration	<input checked="" type="checkbox"/> A. Buildings On Site
<input type="checkbox"/> B. Piles			<input type="checkbox"/> B. Underground Injection	
<input type="checkbox"/> C. Drums, Above Ground			<input type="checkbox"/> C. Chemical/Physical	
<input type="checkbox"/> D. Tank, Above Ground			<input type="checkbox"/> D. Biological	
<input type="checkbox"/> E. Tank, Below Ground			<input type="checkbox"/> E. Waste Oil Processing	
<input checked="" type="checkbox"/> F. Landfill	<u>2500 tons/day</u>		<input type="checkbox"/> F. Solvent Recovery	
<input type="checkbox"/> G. Landfarm			<input checked="" type="checkbox"/> G. Other Recycling/ Recovery <u>metals</u>	
<input type="checkbox"/> H. Open Dump			<input type="checkbox"/> H. Other (Specify)	
<input type="checkbox"/> I. Other (Specify)				

07 Comments

IV. CONTAINMENT

01 Containment of Wastes (Check one)
☒ A. Adequate, Secure ☐ B. Moderate ☐ C. Inadequate, Poor ☐ D. Insecure, Unsound, Dangerous

02 Description of Drums, Diking, Liners, Barriers, etc.

V. ACCESSIBILITY

01 Waste Easily Accessible: ☐ Yes ☒ No
 02 Comments

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA**

I. IDENTIFICATION
01 State _____ 02 Site Number _____

II. DRINKING WATER SUPPLY

01 Type of Drinking Supply (Check as applicable)		02 Status			03 Distance to Site
Community	SURFACE A. <input type="checkbox"/> WELL B. <input checked="" type="checkbox"/>	ENDANGERED A. <input type="checkbox"/>	AFFECTED B. <input type="checkbox"/>	MONITORED C. <input checked="" type="checkbox"/>	A. _____ (mi)
Non-Community	C. <input checked="" type="checkbox"/> D. <input type="checkbox"/>	D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>	B. _____ (mi)

III. GROUNDWATER

01 Groundwater Use in Vicinity (Check one)

☐ A. Only Source for Drinking
 ☒ B. Drinking (Other sources available)
 Commercial, Industrial, Irrigation
 (No other water sources available)
 ☐ C. Commercial, Industrial, Irrigation
 (Limited other sources available)
 ☐ D. Not Used, Unuseable

02 Population Served by Ground Water _____

03 Distance to Nearest Drinking Water Well w/i 1 (mi)

04 Depth to Groundwater _____ (ft)	05 Direction of Groundwater Flow _____	06 Depth to Aquifer of Concern _____ (ft)	07 Potential Yield of Aquifer _____ (gpd)	08 Sole Source Aquifer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---	---	---	---

09 Description of Wells (Including useage, depth, and location relative to population and buildings)

10 Recharge Area

☐ Yes
☐ No

Comments _____

11 Discharge Area

☐ Yes
☐ No

Comments _____

IV. SURFACE WATER

01 Surface Water (Check one)

☐ A. Reservoir, Recreation Drinking Water Source
 ☐ B. Irrigation, Economically Important Resources
 ☐ C. Commercial, Industrial
 ☐ D. Not Currently Used

02 Affected/Potentially Affected Bodies of Water

Name:	Affected	Distance to Site
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)
_____	<input type="checkbox"/>	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 Total Population Within			02 Distance to Nearest Population
One (1) Mile of Site A. _____ No. of Persons	Two (2) Miles of Site B. _____ No. of Persons	Three (3) Miles of Site C. _____ No. of Persons	_____ (mi)

03 Number of Buildings Within Two (2) Miles of Site _____

04 Distance to Nearest Off-Site Building _____ (mi)

05 Population Within Vicinity of Site (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 State 02 Site Number

VI. ENVIRONMENTAL INFORMATION

01 Permeability of Unsaturated Zone (Check one)

☐ A. 10^{-6} - 10^{-8} cm/sec ☐ B. 10^{-4} - 10^{-6} cm/sec ☐ C. 10^{-4} - 10^{-3} cm/sec ☐ D. Greater Than 10^{-3} cm/sec

02 Permeability of Bedrock (Check one)

☐ A. Impermeable
(Less than 10^{-6} cm/sec) ☐ B. Relatively Impermeable
(10^{-4} - 10^{-6} cm/sec) ☐ C. Relatively Permeable
(10^{-2} - 10^{-4} cm/sec) ☐ D. Very Permeable
(Greater Than 10^{-2} cm/sec)

03 Depth to Bedrock

(ft)

04 Depth of Contaminated Soil Zone

(ft)

05 Soil pH

06 Net Precipitation

(ft)

07 One Year 24 Hour Rainfall

(in)

08 Slope

Site Slope

%

Direction of Site Slope

Terrain Average Slope

%

09 Flood Potential

10

Site is in _____ Year Floodplain

☐ Site is on Barrier Island, Coastal High Hazard Area, Riverine Floodway

11 Distance to Wetlands (5 acre minimum)

ESTUARINE

OTHER

A. _____ (mi)

B. _____ (mi)

12 Distance to Critical Habitat (of endangered species)

_____ (mi)

Endangered Species: _____

13 Land Use in Vicinity

Distance to:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. _____ (mi)

B. _____ (mi)

C. _____ (mi) D. _____ (mi)

14 Description of Site in Relation to Surrounding Topography

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 State	02 Site Number

II. SAMPLES TAKEN

Sample Type	01 Number of Samples Taken	02 Samples Sent To	03 Estimated Date Results Available
Groundwater			
Surface Water			
Waste			
Air			
Runoff			
Spill			
Soil			
Vegetation			
Other			

III. FIELD MEASUREMENTS TAKEN

01 Type	02 Comments

IV. PHOTOGRAPHS AND MAPS

01 Type <input type="checkbox"/> Ground <input type="checkbox"/> Aerial		02 In Custody of _____ (Name of organization or individual)
03 Maps <input type="checkbox"/> Yes <input type="checkbox"/> No	04 Location of Maps _____	

V. OTHER FIELD DATA COLLECTED (provide narrative description)

VI. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION**

I. IDENTIFICATION	
01 State	02 Site Number

II. CURRENT OWNER(S)				PARENT COMPANY (If applicable)			
01 Name		02 D+B Number		08 Name		09 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		10 Street Address (P.O. Box, RFD #, etc.)		11 SIC Code	
05 City	06 State	07 Zip Code		12 City	13 State	14 Zip Code	
01 Name		02 D+B Number		08 Name		09 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		10 Street Address (P.O. Box, RFD #, etc.)		11 SIC Code	
05 City	06 State	07 Zip Code		12 City	13 State	14 Zip Code	
01 Name		02 D+B Number		08 Name		09 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		10 Street Address (P.O. Box, RFD #, etc.)		11 SIC Code	
05 City	06 State	07 Zip Code		12 City	13 State	14 Zip Code	
III. PREVIOUS OWNER(S) (List most recent first)				IV. REALTY OWNER(S) (If applicable, list most recent first)			
01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	
01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	
01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART B - OPERATOR INFORMATION**

I. IDENTIFICATION	
01 State	02 Site Number

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
01 Name		02 D+B Number		10 Name		11 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		12 Street Address (P.O. Box, RFD #, etc.)		13 SIC Code	
05 City		06 State	07 Zip Code	14 City		15 State	16 Zip Code
08 Years of Operation		09 Name of Owner					
III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
01 Name		02 D+B Number		10 Name		11 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		12 Street Address (P.O. Box, RFD #, etc.)		13 SIC Code	
05 City		06 State	07 Zip Code	14 City		15 State	16 Zip Code
08 Years of Operation		09 Name of Owner During This Period					
01 Name		02 D+B Number		10 Name		11 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		12 Street Address (P.O. Box, RFD #, etc.)		13 SIC Code	
05 City		06 State	07 Zip Code	14 City		15 State	16 Zip Code
08 Years of Operation		09 Name of Owner During This Period					
01 Name		02 D+B Number		10 Name		11 D+B Number	
03 Street Address (P.O. Box, RFD #, etc.)		04 SIC Code		12 Street Address (P.O. Box, RFD #, etc.)		13 SIC Code	
05 City		06 State	07 Zip Code	14 City		15 State	16 Zip Code
08 Years of Operation		09 Name of Owner During This Period					

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION**

I. IDENTIFICATION	
01 State	02 Site Number

II. ON-SITE GENERATOR

01 Name		02 D+B Number	
03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code	

III. OFF-SITE GENERATOR

01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code		03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	
01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code		03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	

IV. TRANSPORTER(S)

01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code		03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	
01 Name		02 D+B Number		01 Name		02 D+B Number	
03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code		03 Street Address (P.O. Box, R#D #, etc.)		04 SIC Code	
05 City	06 State	07 Zip Code		05 City	06 State	07 Zip Code	

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

1. IDENTIFICATION
01 State 02 Site Number

II. PAST RESPONSE ACTIVITIES

01 ☐ A. Water Supply Closed
04 Description

02 Date _____ 03 Agency _____

01 ☐ B. Temporary Water Supply Provided
04 Description

02 Date _____ 03 Agency _____

01 ☐ C. Permanent Water Supply Provided
04 Description

02 Date _____ 03 Agency _____

01 ☐ D. Spilled Material Removed
04 Description

02 Date _____ 03 Agency _____

01 ☐ E. Contaminated Soil Removed
04 Description

02 Date _____ 03 Agency _____

01 ☐ F. Waste Repackaged
04 Description

02 Date _____ 03 Agency _____

01 ☐ G. Waste Disposed Elsewhere
04 Description

02 Date _____ 03 Agency _____

01 ☐ H. On Site Burial
04 Description

02 Date _____ 03 Agency _____

01 ☐ I. In Situ Chemical Treatment
04 Description

02 Date _____ 03 Agency _____

01 ☐ J. In Situ Biological Treatment
04 Description

02 Date _____ 03 Agency _____

01 ☐ K. In Situ Physical Treatment
04 Description

02 Date _____ 03 Agency _____

01 ☐ L. Encapsulation
04 Description

02 Date _____ 03 Agency _____

01 ☐ M. Emergency Waste Treatment
04 Description

02 Date _____ 03 Agency _____

01 ☐ N. Cutoff Walls
04 Description

02 Date _____ 03 Agency _____

01 ☐ O. Emergency Diking/Surface Water Diversion
04 Description

02 Date _____ 03 Agency _____

01 ☐ P. Cutoff Trenches/Sump
04 Description

02 Date _____ 03 Agency _____

01 ☐ Q. Subsurface Cutoff Wall
04 Description

02 Date _____ 03 Agency _____

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 State 02 Site Number

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. Barrier Walls Constructed
04 Description

02 Date _____ 03 Agency _____

01 ☐ S. Capping/Covering
04 Description

02 Date _____ 03 Agency _____

01 ☐ T. Bulk Tankage Repaired
04 Description

02 Date _____ 03 Agency _____

01 ☐ U. Grout Curtain Constructed
04 Description

02 Date _____ 03 Agency _____

01 ☐ V. Bottom Sealed
04 Description

02 Date _____ 03 Agency _____

01 ☐ W. Gas Control
04 Description

02 Date _____ 03 Agency _____

01 ☐ X. Fire Control
04 Description

02 Date _____ 03 Agency _____

01 ☐ Y. Leachate Treatment
04 Description

02 Date _____ 03 Agency _____

01 ☐ Z. Area Evacuated
04 Description

02 Date _____ 03 Agency _____

01 ☐ 1. Access to Site Restricted
04 Description

02 Date _____ 03 Agency _____

01 ☐ 2. Population Relocated
04 Description

02 Date _____ 03 Agency _____

01 ☐ 3. Other Remedial Activities
04 Description

02 Date _____ 03 Agency _____

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

1. IDENTIFICATION	
01 State	02 Site Number

1. ENFORCEMENT INFORMATION

01 Past Regulatory/Enforcement Action ☐ Yes ☐ No

02 Description of Federal, State, Local Regulatory/Enforcement Action

III. SOURCES OF INFORMATION (cite specific references, e.g., state files, sample analysis, reports)

Appendix B
Contact Log and Reports

P.A./S.I. CONTACT LOG

Facility Name: Tri-City Landfill
Facility ID: AZD980735781

Name	Affiliation	Phone #	Date	Information
Ken Hanks	AZ-DWR	(602) 25-1586	11/12/86	Suggested FIT call their Basic Data Office at (602) 255-1543. They can provide information regarding well location, depth and logging.
Bill Remick	AZ-DWR Basic Data Office	(602) 255-1543	11/13/86	They're open from 6 am to 4 pm, M-F. Copies are 20¢ each. 2810 S. 24th St. at Magnolia, 2 blocks south of freeway.
Frank Mertley	Community Manager	(602) 941-7277	11/19/86	He won't be there on the 24th, but Chuck Gabriel (602) 941-7376 or 7375 and Burnett "Buddy" Gates who operates the landfill will be able to help me (602) 941-7308.
Chuck Freeman	IHS-EHS	(602) 263-1576	11/19/86	Made appt. to meet with him re Tri-City at 9:15 am on Monday, November 24, 1986.
Chuck Gabriel	Salt River Tribe Public Works	(602) 941-7376	11/19/86	Will be in tomorrow.
Jack Bale	Department of Health Services	(602) 257-6805	11/19/86	Has no unique information on the site. Suggested I call Lindy Bauer. Will have file information for me tomorrow.

P.A./S.I. CONTACT LOG

Facility Name: Tri-City Landfill
Facility ID: AZD980735781

Name	Affiliation	Phone #	Date	Information
Chuck Gabriel	Salt River	(602) 941-7376	11/20/86	Will meet with him at the office at 10 am.
Pam Brezak	EPA-CSC	(415) 974-7933	11/25/86	No available file information on the Mesa landfill.
Adele Alderson	EPA	974-0773		Has information on drinking water wells on reservation. Will call me back when it's all together.
Dorothy	City of Mesa	(602) 834-2385	12/9/86	The population of the City of Mesa is 272,975 in 1985.
Chuck Freeman	Indian Health Service	(602) 263-1576	12/9/86	Discussed current IHS activities at the site.
Art Johnson	BIA	(602) 241-2846	12/23/86	Wants to be kept informed of EPA's activities at the site. 10,000 E. McDowell Scottsdale, AZ 85256
Chuck Freeman	IHS	(602) 263-1576	1/16/87	The population of the Salt River Reservation is approximately 4,500.

CONTACT REPORT

AGENCY: Arizona Department of Health Services
ADDRESS: Phoenix, Arizona
PERSON
CONTACTED: Barry Abbott
PHONE NO.: (602) 257-2239
FROM: Jane Hoppin
TO: Tri-City Landfill File
DATE: October 28, 1986
SUBJECT: Tri-City Landfill
cc:

The DOHS has no jurisdiction at the site because the site is on Indian land. In ca. 1980, the landfill washed out due to flooding. The landfill was filled in, however no flood protection has been built. Mr. Abbott was out near the landfill last winter while the river was running and noted that the landfill was only five feet above the water level. In severe flood conditions, it would be under the water level.

He suggested I contact Chuck Graff of the DOHS - Hydrology Department at (602) 257-2357 or Sandra Eberhardt of DOHS at (602) 257-2336. He also suggested that I try to get a copy of the Maricopa County Association of Government's Report called "Volatile Organic Contaminants and DBCP in groundwater in Mesa" prepared by Ken Schmidt and Associates in August 1986.

CONTACT REPORT

AGENCY: EPA RCRA
ADDRESS: 215 Fremont, San Francisco, CA 94105
PERSON
CONTACTED: Ron Leach
PHONE NO.: (415) 974-7523
FROM: Jane Hoppin
TO: Tri-City Landfill File
DATE: 10/28/86
SUBJECT: RCRA involvement on Indian lands.

The EPA enforces RCRA on all federal lands including Indian lands. The EPA has no enforcement authority for municipal landfills if they have not accepted hazardous waste since 1980. If they have accepted or do accept hazardous materials they should have filed an RCRA notification in 1980. If they accept hazardous materials, then they are operating illegally under RCRA.

CONTACT REPORT

AGENCY: BIAI
ADDRESS: Phoenix, AZ
PERSON
CONTACTED: Amy Heuslein
PHONE NO.: (602) 241-2281
FROM: Jane Hoppin
TO: Tri-City Landfill
DATE: October 29, 1986
SUBJECT: Contacts with the Salt River Indian Reservation

Ms. Heuslein suggested that I contact:

Sam Hillard, BIA Superintendent
(602) 241-2842

Art Johnson, Realty Specialist
(602) 241-2816

Jack Christy, Asst. Chief of Safety for
the Environmental Health Service of
the Indian Health Service
(602) 263-1650

Gerald Enton, President of the Salt River
Community Counsel
(602) 241-7277

CONTACT REPORT

AGENCY: IHS-EHS
ADDRESS: Phoenix, AZ
PERSON
CONTACTED: Chuck Freeman
PHONE NO.: (602) 263-1576
FROM: Jane Hoppin
TO: Tri-City Landfill File
DATE: November 5, 1986
SUBJECT: Tri-City Landfill

He has no file information, however he is in contact with the tribe concerning the landfill. The tribe is concerned about the contamination issue because there are two abandoned landfills in the area.

He'd like to participate in the site inspection, tentatively scheduled for November 24, 1986. He'll contact Frank Mertely, Community Manager, at (602) 941-7277 to arrange the details. I'll send Chuck a copy of the SI confirmation letter.

Chuck Freeman
PIMC Bldg. No. 5
4212 N. 16th Street
Phoenix, AZ 85016

CONTACT REPORT

AGENCY: Salt River Project
ADDRESS: Phoenix, Arizona
PERSON
CONTACTED: Bill Davis
PHONE NO.: (602) 236-2881
FROM: Jane Hoppin
TO: Tri-City Landfill File
DATE: October 28, 1986
SUBJECT: MAG Report

SPR consulted the MAG Report on Volatile Organic Contamination of groundwater in the Mesa area while trying to find an appropriate disposal site for construction debris. Apparently all the wells south and east of the site, which are downgradient of Tri-City Landfill, are contaminated with TCE and PCE with levels ranging from 6 to 20 ppb.

CONTACT REPORT

AGENCY: Indian Health Service - Environmental Health Service
ADDRESS: Phoenix, AZ
PERSON
CONTACTED: Dean Jackson, Chief of EHS
PHONE NO.: (602) 263-1650
FROM: Jane Hoppin
TO: Tri-City Landfill File
DATE: November 5, 1986
SUBJECT: Tri-City Landfill

Tri-City Landfill serves the Cities of Scottsdale, Mesa and Tempe. It is located on Indian land and operated by the Salt River Indian tribe. There are two groundwater monitoring wells installed and one methane well on-site. One of the groundwater monitoring wells may have collapsed. For more information on the site, he suggested I contact Chuck Freeman, registered sanitarian at (602) 263-1576.

The Indian Health Service serves in an advisory role to the tribes; they have no regulatory authority.

Appendix C
Photodocumentation



Photo 1: Entrance to Landfill

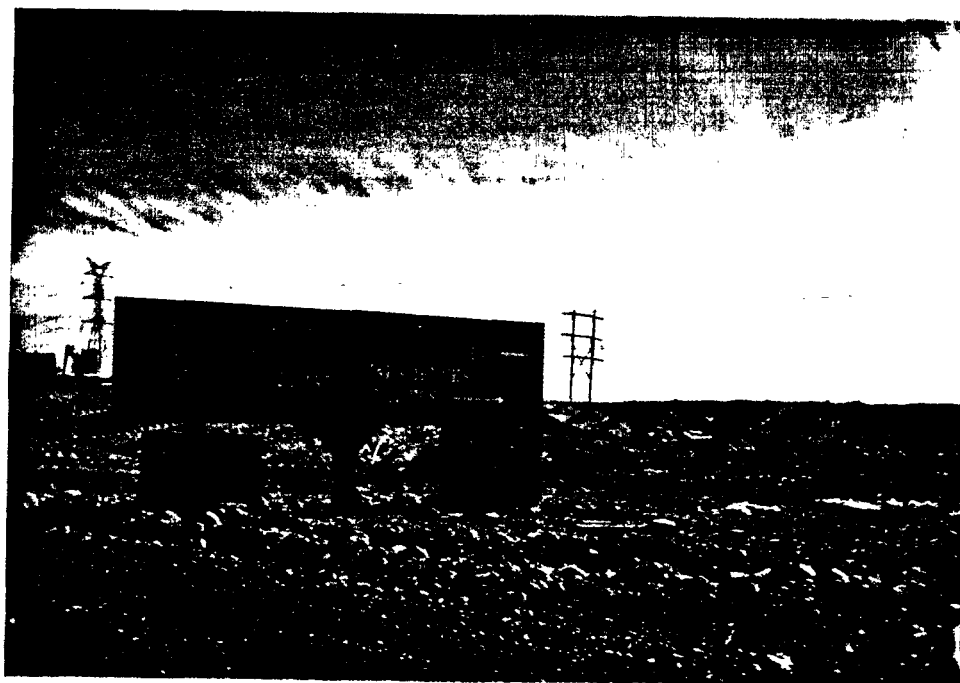


Photo 2: Sign indicating different areas in the Landfill

All photographs taken by Douglas D. Russell on November 24, 1986



Photo 3: Metal recycling area

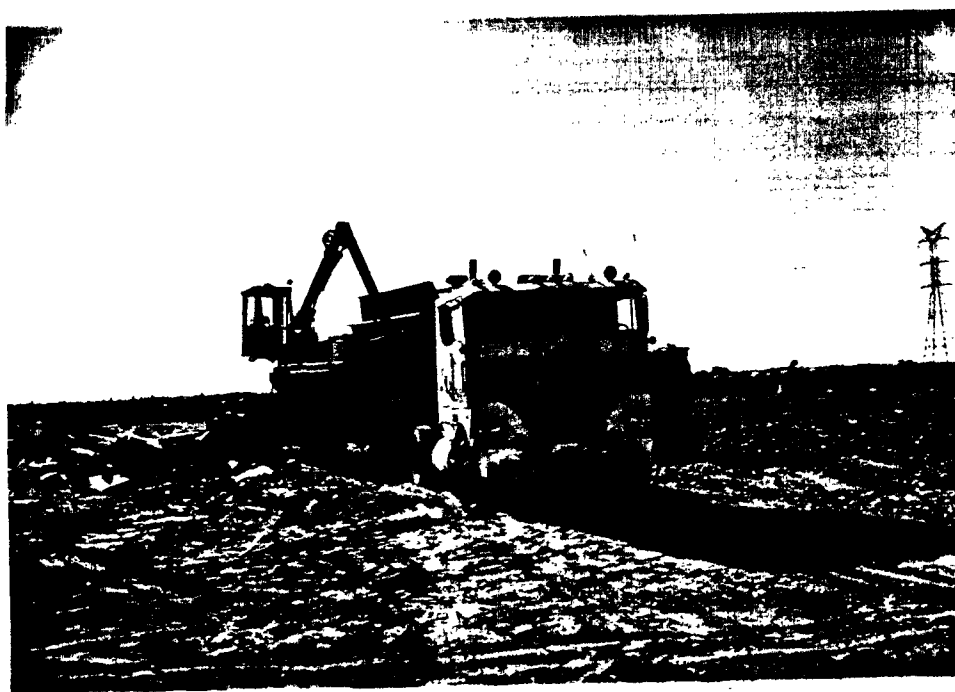


Photo 4: Metal recycling area



Photo 5: Municipal refuse disposal area



Photo 6: River Basin and Berm of Construction Debris



Photo 7: Berm and construction debris disposal area



Photo 8: River channel during widening operation

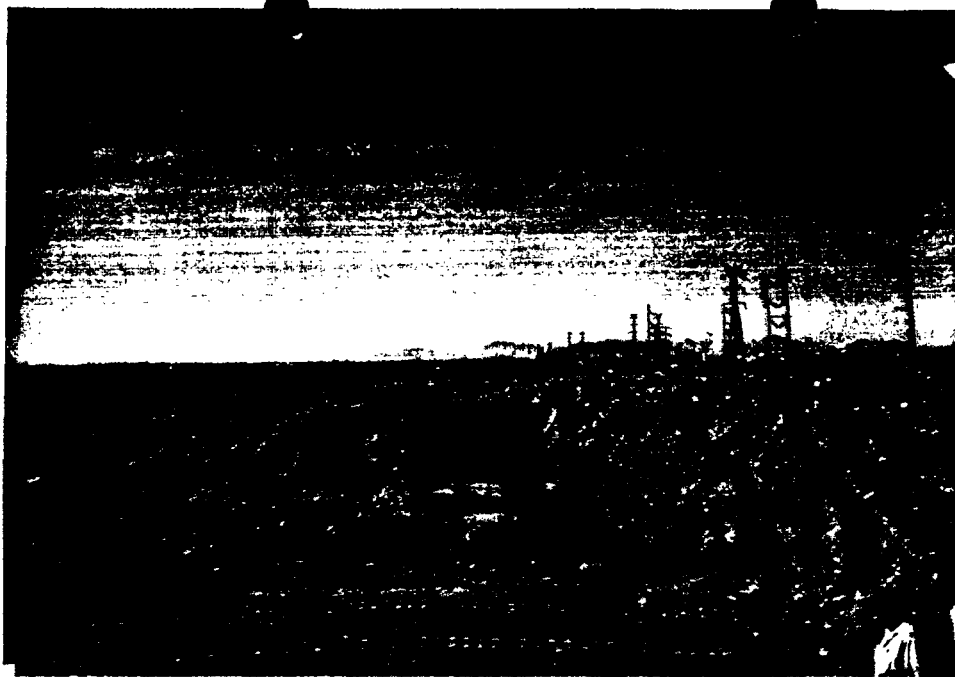


Photo 9: Western on-site monitor well

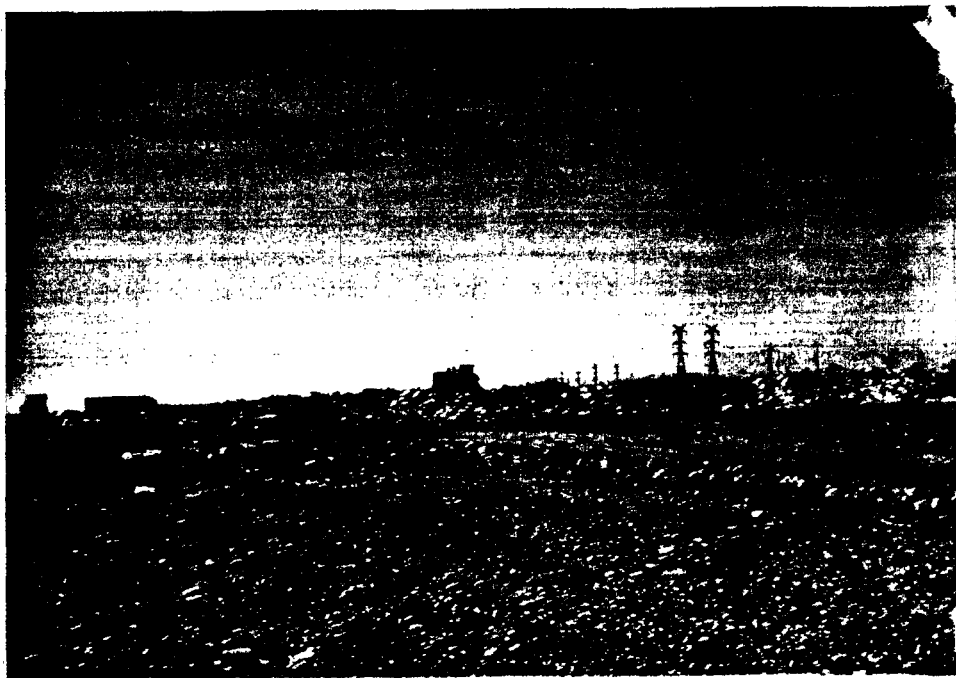


Photo 10: Construction debris disposal area

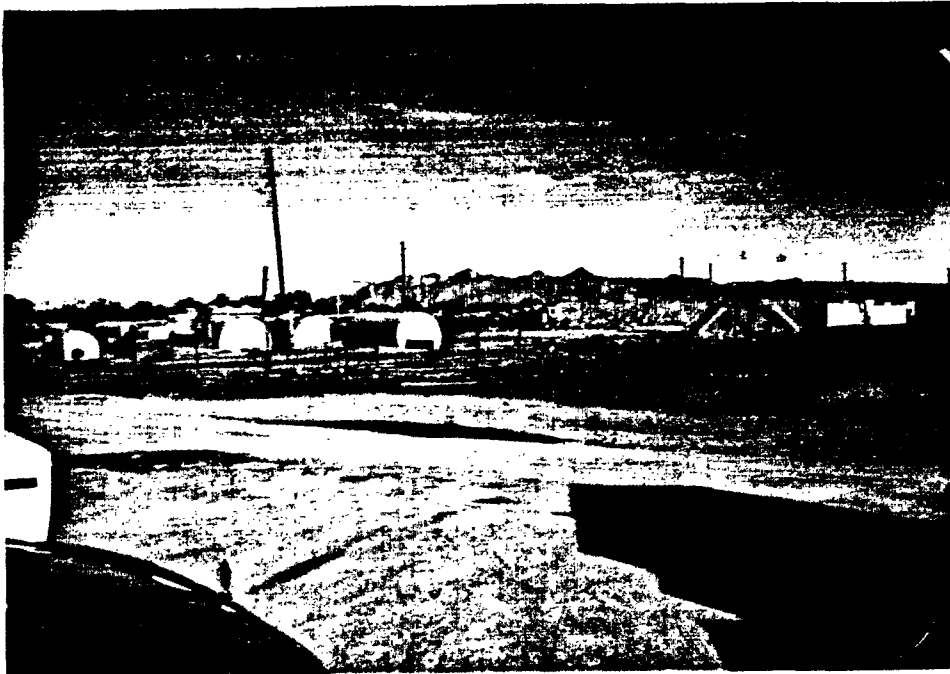


Photo 11: Fuel storage and truck washing area



Photo 12: Former refinery across the street from TriCity Landfill



Photo 13: Former TriCity Landfill location

Appendix D
Possible Responsible Parties

Possible Responsible Parties

Source: Tri-City Landfill Operators, November 24, 1986 FIT Site
Inspection

Motorola, Inc. - High Frequency and Optical Products Division
5005 E. McDowell Road
Phoenix, AZ 85008

Scottsdale Memorial Hospital
Scottsdale, AZ

Mesa Lutheran Hospital
Mesa, AZ

VA Hospital
Phoenix, AZ

Construction firms:
(all in the Phoenix area)

Leylor Waste Management
VFI
Valley Steel